

WHAT IS CLAIMED IS:

1 1. A method of forecasting demand for a product, comprising:
2 generating an initial demand forecast by imposing onto a set of product
3 demand parameters a demand profile having a life cycle characterized by a
4 growth phase, a maturity phase and a decline phase; and
5 generating an event-adjusted demand forecast based upon a convolution of
6 the initial demand forecast with a set of one or more impact profiles each
7 representing an impact of a respective set of one or more events on product
8 demand over the product life cycle.

1 2. The method of claim 1, wherein the set of product demand
2 parameters includes an estimate of the mature demand for the product.

1 3. The method of claim 1, wherein the set of product demand
2 parameters includes estimates of one or more parameters representing a length of
3 the product life cycle.

1 4. The method of claim 3, wherein the life cycle length parameters
2 include length estimates for the maturity and decline phases of the product life
3 cycle demand profile.

1 5. The method of claim 1, wherein the set of product demand
2 parameters includes an estimate of stock-in demand relative to an estimate of
3 mature demand.

1 6. The method of claim 1, wherein one or more of the impact profiles
2 correspond to events having a multiplicative impact on demand for the product.

1 7. The method of claim 6, wherein among the multiplicative impact
2 profiles are a seasonality impact profile, a price drop impact profile, a promotions
3 impact profile, a competitive product introduction impact profile, and an
4 economic conditions impact profile.

1 8. The method of claim 1, wherein one or more of the impact profiles
2 correspond to events having an additive impact on demand for the product.

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1 9. The method of claim 8, wherein among the additive impact profiles
2 are a deals impact profile, a constrained product introduction impact profile, a
3 left-to-sell impact profile and an impact profile corresponding to a bundling event.

1 10. The method of claim 1, wherein the life cycle demand profile
2 corresponds to a normalized monthly demand profile derived from historical
3 demand data.

1 11. The method of claim 1, further comprising generating an inventory-
2 adjusted demand forecast based upon a convolution of the event-adjusted
3 demand forecast with a measure of channel inventory and sell-through impact on
4 product demand.

1 12. The method of claim 11, further comprising computing the channel
2 inventory impact measure based upon an estimate of aggregate channel weeks of
3 supply.

1 13. The method of claim 12, wherein computing the channel inventory
2 impact measure comprises computing a measure comparing the aggregate channel
3 weeks of supply estimate and an estimate of an aggregate weeks of supply target
4 for the channel.

1 14. The method of claim 13, wherein computing the channel inventory
2 impact measure further comprises adjusting the comparison measure based upon
3 an estimate of channel demand sensitivity to actual inventory levels relative to
4 target inventory levels.

1 15. The method of claim 11, further comprising generating a demand-
2 adjusted demand forecast based upon a convolution of the inventory-adjusted
3 demand forecast with a measure of forecast error computed from a measure of
4 actual demand and a measure of demand predicted by the inventory-adjusted
5 demand forecast.

1 16. The method of claim 15, further comprising smoothing the measure
2 of forecast error in accordance with an exponentially-weighted moving average
3 function.

1 17. A computer program for forecasting demand for a product, the
2 computer program residing on a computer-readable medium and comprising
3 computer-readable instructions for causing a computer to:

4 generate an initial demand forecast by imposing onto a set of product
5 demand parameters a demand profile having a life cycle characterized by a
6 growth phase, a maturity phase and a decline phase; and

7 generate an event-adjusted demand forecast based upon a convolution of
8 the initial demand forecast with a set of one or more impact profiles each
9 representing an impact of a respective set of one or more events on product
10 demand over the product life cycle.

1 18. A system for forecasting demand for a product, comprising a
2 graphical user interface configured to:

3 display a demand profile having a life cycle characterized by a growth
4 phase, a maturity phase and a decline phase;

5 receive values for a set of product demand parameters;

6 display an initial demand forecast corresponding to the life cycle demand
7 profile modified in accordance with the set of product demand parameters;

8 display a set of one or more impact profiles each representing an impact of
9 a respective set of one or more events on product demand over the product life
10 cycle;

11 receive values for modifying one or more of the impact profiles; and

12 display an event-adjusted demand forecast corresponding to a convolution
13 of the initial demand forecast with one or more impact profiles.

1 19. The system of claim 18, wherein the graphical user interface is
2 configured to enable a user to selectively apply impact profiles to the initial
3 demand forecast.

1 20. The system of claim 18, further comprising a calculation engine
2 configured to:

3 compute an inventory-adjusted demand forecast based upon a convolution
4 of the event-adjusted demand forecast with a measure of channel inventory
5 impact on product demand; and

- 6 compute a demand-adjusted demand forecast based upon a convolution of
- 7 the inventory-adjusted demand forecast with a measure of forecast error
- 8 computed from a measure of actual demand and a measure of demand predicted
- 9 by the inventory-adjusted demand forecast.

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